REMARKS

Claims 1-8 and 10-14 are all the claims pending in the application; each of the claims has been rejected.

Claim 1, 3, and 8 have been amended to recite the function of the polypeptides recited in the claim (suppression of smooth muscle cell proliferation). Support for the amendment may be found throughout the substitute specification, such as at page 4, lines 13-14 and at page 5, lines 1-2.

No new matter has been added. Entry of the amendment is respectfully requested.

I. New Matter

At paragraph 28 of the Office Action, the amendment to the specification filed July 25, 2002, is objected to under 35 U.S.C. §132 as improperly introducing new matter into the specification.

The Examiner objects to the description in claim 13 of culturing two sets of cells and comparing them. The Examiner states that while page 26 of the substitute specification describes screening compounds, i.e., agonists/antagonists, no controls are described for such an assay. Thus, the Examiner concludes, the introduction of the specific screening method into claim 13 is an improper introduction of new matter into the application.

In response, Applicants assert that there is clear support in the specification for the method recited in claim 13.

Claim 13 recites a method of screening for an agonist or antagonist of the polypeptide according to claim 1 or 2, namely, the A55 polypeptide. The claim further recites the preparation of two cell cultures, and while both are cultured in the presence of the A55

polypeptide, only one has a test compound added to it. The proliferation of the two cultures are then compared, and based on the results, it is determined whether the test compound is an agonist or antagonist of the A55 polypeptide.

As described in Example 7 (pages 36-37 of the Substitute Specification), one plate of vascular smooth muscle cells was treated with A55 and a second was treated with A55 plus PDGF. The results of the experiment are shown in Figure 1. As can be seen therein, cells treated with the A55 polypeptide alone (bar 3: "A55 SUPERNATANT) are compared with cells treated with the A55 polypeptide plus differing concentrations of PDGF (bars 10-12: "A55 SUPERNATANT + P1 [+P2] [+P3]). Example 7, and the results shown in Figure 1, disclose an experimental protocol identical to the method recited in claim 13.

Thus, Applicants assert that clear support for the method recited in claim 13 is present in the specification, and respectfully request reconsideration and withdrawal of the rejection.

II. Rejection of Claim 13 – Written Description

At paragraph 30 of the Office Action, claim 13 is also rejected under 35 U.S.C. §112, first paragraph, as lacking adequate written description support.

The Examiner believes that the specification has no disclosure of using a control as recited in claim 13.

In response, Applicants incorporate herein the points made above with regard to the rejection of claim 13 as reciting new matter. As explained above, the method recited in claim 13 is clearly supported by the specification and a clear description of the method is included in the specification, both at pages 26-27 of the substitute specification, as well as in Example 7 and as shown in Figure 1.

Accordingly, Applicants assert that there is adequate written description support for claim 13 in the specification, and respectfully request reconsideration and withdrawal of this rejection.

III. Rejection of Claims 1-8 and 10-14 – Indefiniteness

At paragraph 29 of the Office Action, claims 1-8 and 10-14 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

The Examiner asserts that the phrase "having the same function" is unclear. The Examiner explains that it is unclear whether the A55 or the A55b polypeptide is being referred to. Also, the exact nature of the function is unclear.

In response, Applicants note that the A55 protein is the predominant protein expressed by mice and human cells. The A55b protein is a splice variant in which the first 6 amino acids in the N-termini of the A55 protein are replaced with 19 amino acids encoded by a different exon. As asserted and shown in the specification, the primary function of the A55 protein appears to be in the suppression of smooth muscle cell proliferation.

Thus, Applicants include herewith an amendment to the claims to recite the function of the recited polypeptides, namely, suppression of smooth muscle cell proliferation.

As the claims have been amended to be more definite, Applicants respectfully request reconsideration and withdrawal of this rejection.

IV. Rejection of Claims 1, 3, 6-8 and 10-13 – Written Description

At paragraph 21 of the Office Action, the previous rejection of claims 1, 3, 6-8 and 10-13 under 35 U.S.C. §112, first paragraph, as lacking adequate written description support, has been maintained.

The Examiner asserts that not all of the written description requirements with respect to the rejected claims have been met because the functional language is unclear. The Examiner also states that claim 3 does not limit the cDNA functionally in the second half of the claim, after the word "or."

In response, as discussed above, included herewith are amendments to the claims to more clearly recite the function of the recited proteins. Claim 3 has also been amended to functionally limit the polypeptides encoded by the cDNA.

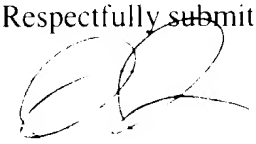
In view of the amendments to the claims, Applicants assert that the claims have adequate written description support, and therefore respectfully request reconsideration and withdrawal of this rejection.

V. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: February 19, 2003

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims are amended as follows:

1. (Amended) A substantially purified polypeptide comprising the amino acid sequence shown in SEQ ID NO. 3, 4, 8 or 9, or a homologue thereof having at least 95% sequence identity over the full length of the amino acid sequence and functioning in the suppression of smooth muscle cell proliferation~~having the same function~~.

3. (Amended) A cDNA encoding the polypeptide according to claim 1, or a cDNA encoding a homologue of a polypeptide according to claim 1 having at least 95% sequence identity over the full-length of the nucleotide sequence shown in SEQ ID NO: 1, 5, 6 or 10 and functioning in the suppression of smooth muscle cell proliferation.

8. (Amended) A method for producing a polypeptide of SEQ ID NO: 3, 4, 8 or 9, or a homologue thereof having at least 95% sequence identity over the full length of the amino acid sequence and functioning in the suppression of smooth muscle cell proliferation~~having the same function~~, comprising culturing a host cell of claim 7 under a condition effective to express the polypeptide, and recovering the polypeptide so expressed.